Future Scenarios for East West Information

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1. Background

1.1. This report arises out of my recent visit to the Soviet Union. Its purpose was to give lectures on information, demonstrate CD ROM products, and discuss possibilities for enhanced East West co-operation on common information problems. What follows is a personal view based on observation and analysis of part of the Soviet information scene, and the report concludes with a series of recommendations.

2. Soviet Background

2.1. The Soviet Union has the second largest number of graduates in the world. The Unesco statistical year book gives the following annual figures for different countries;

<table>
<thead>
<tr>
<th>Country</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>1,830,000</td>
</tr>
<tr>
<td>USSR</td>
<td>839,000</td>
</tr>
<tr>
<td>Japan</td>
<td>585,000</td>
</tr>
<tr>
<td>China</td>
<td>407,000</td>
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<tr>
<td>Germanie</td>
<td>351,000</td>
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<tr>
<td>UK</td>
<td>284,000</td>
</tr>
<tr>
<td>France</td>
<td>269,000</td>
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<tr>
<td>Korea</td>
<td>260,000</td>
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</tbody>
</table>

However, because the Soviet Union has had a centralised command economy for the past seventy years this has meant that expertise could and has been concentrated in certain islands of excellence such as military development, space research, nuclear power, heavy industry, marine technology while less attention has been paid to the production of consumer goods and many other aspects of the market economy. On the other hand there is continuing emphasis on pure science, particularly in physics and chemistry, in contrast to the West where basic research has been eroding, especially in Britain.

2.2. The "island" approach to Soviet science has reduced the role of general communication in science, accentuated by the isolation of the Soviets from world science. Although many Soviet scientists can read English there is still a language barrier; there have been many restrictions on travel and there is a lack of hard currency, for example, the demand for interlibrary loans in recent years has been only seven percent of that from Iraq. The recent surge of information technology in the West has largely bypassed the Soviets, although, considerable skill exists in the programming and use of computers and Soviet designs are available. Optical disk storage is possessed by very few centres. Again currency or rather lack of it has been the deterring factor.

3. Effects of Perestroika

3.1. Apart from the political and social changes arising from perestroika the main impact of both this and glasnost has been psychological. There is now a considerable reaction to centralisation. For example, in a recent Soviet survey thirty two per cent said they wanted to own their own business, and the information scene is no exception, with an emphasis on bilateral deals between individual Soviet institutions and foreign organisations. The eventual success of such schemes must be gauged against the general background of political change in the Soviet Union.

4. Preparations for Visit

4.1. In order to maximise the opportunities presented by the visit various CD ROM manufacturers were contacted with a view to demonstrating their products on
a portable CD ROM player. It was agreed that these products would be on loan for evaluation by Soviet information specialists, and could be returned at the next meeting of Soviet and Western information groups. At first it was hoped that the portable CD ROM player could be provided by the manufacturers, Concern, but after one of their other models on loan was damaged in transit they were reluctant to help. However, the British Council offered to fly out one of their new purchases to await collection at the British Embassy in Moscow, and this obviated the time consuming process of filling in forms for the Department of Trade to obtain a temporary licence for the machine, even though it contained only a 286 chip. The possibilities of demonstration were enhanced by the loan of a portable transview by Silver Platter so that the screen output could be viewed by a wider audience.

4.2. Before leaving, a special visit was paid to London to gain familiarity with a concern owned by Silver Platter including the loading of software and disks. Material from Silver Platter, Chadwyck-Healey and OCLC and a business disk system was taken out. Unfortunately, the software was not included with the OCLC disks and so these could not be used.

5. Details of Visit

5.1. I arrived in Moscow on April 23rd, and from then on was in the hands of ICSTI (International Centre for Scientific and Technical Information), for whom no trouble was too great. ICSTI is one of the leading information organisations in the Soviet Union but its members and workers are drawn from all parts of Eastern Europe. Its headquarters were the venue for 1st East West Online Conference last October.

5.2. On April 24th I picked up the Concern player from the British Embassy and by the end of the day the business disk and software was up and running. My Soviet hosts were fairly familiar with the logging on procedures.

5.3. The next day, unfortunately, we lost the screen display function on the player due to what was apparently a bad command. But fortunately, the machine output could still be read via the transview.

5.4. On Thursday I lectured and demonstrated for about six hours to members of ICSTI, visiting information specialists, and a party of computer students who attend a night University.

5.5. On Friday I had various discussions with members of ICSTI (see comments). Later I flew to Tallinn, Estonia, where I was met by representatives of the Estonian Academy of Sciences.

5.6. On Saturday I gave lectures and demonstrations to an audience of Estonian scientists and information specialists who stayed for about five hours. Since we were approaching the May holiday my Estonian hosts very kindly organised accommodation and a cultural programme for me before returning to Moscow on Wednesday.

5.7. On Thursday I met Professor Butrimenko, head of ICSTI, for further talks before flying back to London.

6. Comments of Visit

6.1. There is just one six letter word that dominates all prospects for East West trade - valuta - the Russian word for hard currency so most conversations are dominated either by how to earn it or to avoid the need for it.

6.2. ICSTI is very interested in marketing Soviet databases that could earn hard currency. But from this distance it is difficult to ascertain their value and therefore sales potential in the West. It was agreed that a practical first step could be the listing of Soviet institutions that have information products available. ICSTI already have a large database in digitised form, and I suggested ways of enhancing it so that it could be of interest in the West. For example, the list of information producers should include name, address, telephone, fax, and telex numbers, short description of their
purpose, what they produce, and in what language, whether English is spoken, a contact name, and the format of production. If they have special responsibility for listing commercial activities in their area that should be indicated. Perhaps a bilingual hard copy version might emerge from this, updated annually on floppy disk, suitably programmed for multi access. There should be a considerable market for such a work.

6.3. ICSTI also has a database of all these produced in member countries, and an English version of this should be of value.

6.4. The idea of setting up a seminar in Moscow on acquiring information from the West was received with interest. It was suggested that this might take place before the projected 2nd East West Online Conference next Spring, although it would be necessary to avoid clashing with other conferences. For example, the UKSG annual conference is from April 8th to 11th, 1991. Subsequent discussions in the United Kingdom indicated that the UKSG is not fully resourced to take on extra commitments abroad and so any meeting could either be set up on a consultancy basis or as part of the possible developing responsibilities of the European serials conference. Basically such a seminar would be aimed at those East European information specialists who make the buying decisions on information products, with speakers, but probably not delegates, coming from the West.

6.5. The prospects for East West information transfer were reviewed. It was agreed that these were hampered by the need to pay in hard currency. One radical solution being considered by ICSTI was the purchase of a Soviet military aircraft that could be used not only for the distribution of interlibrary loans within the Soviet Union but also act as a pick-up for consolidated periodicals subscriptions via the Netherlands with an additional leg to Leeds airport to transfer British Library interlibrary loans. ICSTI act as Faxon's representatives in Moscow, but they are interested in further contacts with other Serials Agents.

6.6. Apart from the hard currency the other main problem is the logistics of communications with the Soviet Union. The introduction of a direct air mail link as proposed by ICSTI could make a major contribution here - not only in document delivery but the transfer of passengers - ICSTI have a good relationship with Moscow international airport and customs. Another contribution to East West dialogue would be the setting up of an exchange of information specialists for, say, three weeks at a time with all accommodation and subsistence costs borne by the host countries. Once again the idea of some kind of third currency or voucher system surfaces. Perhaps the use of interlibrary loan forms for information transfers including transport, and vouchers for exchange visits could be examined.

6.7. Talks were also held with Estonian representatives. The uncertain political situation in that part of the world makes it difficult to present a clear prospect of future trading conditions, though here again computer skills and enthusiasm are high and much English is spoken. The introduction of a new Estonian currency (crowns) on January 1st 1991 will emphasise Tallinn's entrepot relationship with the Soviet Union - Tallinn is one of two modern deepwater harbours in the Soviet Baltic and at present is under utilised. Nevertheless, opportunity for trade already exists, and Estonian skill in leather-work and book binding should be of considerable interest to Western librarians.

6.8. As previously mentioned Soviet institutions are rapidly entering an entrepreneurial stage and exploring new ways of financing their operations. ICSTI itself is now a kind of privatised research institution with an annual turnover of 3 million roubles, annual surplus of 600,000 and paying bonuses to its staff who are all highly qualified.
This may explain the enthusiasm and dedication of many of those I met working on the Sunday before the May holiday, and sometimes from 8.30 in the morning to after 7 at night. In talks with the director, Professor Butrimenko, stressed the democratic nature of the institute even to the extent of accepting membership and input from western firms and organisations. There is nothing to stop a Western firm or consortium paying an initial share to become a member of the ICSTI board. Voting on some matters would depend on share contribution but in others on representational strength, that is irrespective of the size of share owned. Although ICSTI is pursuing many entrepreneurial possibilities it is still aware of the need to support the information infrastructure in both the Soviet Union and other parts of Eastern Europe.

7. Prospects for Internal Soviet Achievement

7.1. Although hard currency dominated many of the discussions I also became aware of Soviet enthusiasm for bootstrap operations. For example, the dual keyboard computers used by ICSTI are at present made in Taiwan, but there are plans afoot to manufacture 100,000 units a year at Gorky. There was considerable interest in optical disk storage techniques, and there may even be capability to develop technographic versions in the near future. The present restrictions on the flow of western information technology to the East, particularly by ComCon, may well backfire. For example, that organisation has recently vetoed a 500 million dollar project to develop an optical fibre network across the Soviet Union, which would also have generated hard currency by taking Western international calls.

7.2. Anyone who has tried to phone London from Moscow recently knows that the Soviet telephone system is now inadequate for international business and the problem will only get worse as more people try to develop trade links. Unless the ComCon decision is reversed it will be particularly unfortunate for the information technology business, while at the same time forcing the Soviets to develop their own technology and standards. Theoretically such a degree of isolation should favour CD ROM, but if normal trading links cannot take place in the first place then the necessary support services will just not exist, and the Soviets will also go on to develop their own optical technology. Restrictions on trade mean either the Soviets making it without Western assistance or sliding towards third world status. In either case Western firms will suffer.

8. Recommendations

Increased co-operation should be pursued on the following lines:

8.1. The design of a bilingual Soviet Information Industry Handbook to be updated annually on floppy disk. Western sponsors for this project should be found.

8.2. A Western sponsor for the East European database on theses should be found.

8.3. The role of the European Serials Conference in promoting East West information trade should be discussed with the practical application of setting up a seminar in the Soviet Union.

8.4. Improved ways of information transfer should be explored particularly with the British Library and serial agents.

8.5. An exchange agreement facilitating visits by Soviet and British information specialists should be set up on a non-hard currency basis.

8.6. A voucher scheme to cover information trade between East and West should be developed. Such vouchers could be backed by British Library interlending forms. For example, organisations could buy into ICSTI with interlibrary loan forms, with ICSTI and the British Library acting as banking coordinators.
8.7. The potential of Estonian expertise in binding should be explored.
8.8. The potential of Tallinn as a trading entrepot for the Soviet Union should be investigated.
8.9. The opportunities of using the Soviet Union as a manufacturing base for information technology should be actively pursued.
8.10. Political pressure should be brought to relax restrictions on the flow of Western information technology.
8.11. Finally, this report should be circulated widely, and those institutions which would be interested in any of the recommendations asked to contact the UKSG with a view to coordinating future plans.

9. I would like to thank:

- the CD ROM firms of Silver Platter, Chadwyck-Healey and OCLC for their enthusiastic and practical support,
- the British Council for equipment and airfares,
- the University of Newcastle upon Tyne for providing time for the study tour,
- ICSTI and the Estonian Academy of Sciences for their invitations and fulsome hospitality, and
- the UKSG for providing the networked support.

Editorial Note:

This report, originally presented to the UKSG Committee, contains useful information based on first-hand experience and is published here to provide background for two Soviet contributions to the Netherlands European Conference which will appear in the next issue of "Serials".